



**Department of
Public Service**



NYSERDA

Case 15-E-0302

Clean Energy Standard

Final Phase 4 Implementation Plan

Filed by

**Staff of the New York State Energy Research and Development
Authority**

and

Staff of the New York State Department of Public Service

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1. Introduction

On August 1, 2016, the Public Service Commission (Commission) issued its Order Adopting a Clean Energy Standard¹ (CES Framework Order). The CES includes a Renewable Energy Standard (RES), a Zero-Emissions Credit (ZEC) requirement, and, as of July 12, 2018, an Offshore Wind Standard.² The CES Framework Order anticipated that additional measures would be necessary to fully implement the CES, and instituted an implementation phase to address issues and approve changes as necessary.

The CES Phase 1 Implementation Plan (Phase 1 Plan) included details and processes regarding RES eligibility, certification, the long-term procurement of Renewable Energy Certificates (RECs), Load Serving Entity (LSE) demonstration of compliance, and other reporting requirements. The Phase 1 Plan was approved by the Commission on February 22, 2017³ and filed by Staff and NYSERDA on March 24, 2017.

The CES Phase 2 Implementation Plan (Phase 2 Plan) included modifications to the annual targets for LSE obligations for 2018 through 2021, clarification of the treatment of voluntary purchases and baseline resources in observing progress toward the CES goals, protocols for the application of an annual divergence test, program design and procedures for the sale in 2018 of Tier 1 RECs procured by NYSERDA under long-term contracts, direction for post-2018 design modifications, establishment of a method to calculate the alternative compliance payment (ACP) for 2018 and a description of how NYSERDA would utilize any ACPs received. The Phase 2 Plan was approved by the Commission on November 17, 2017⁴ and filed by Staff and NYSERDA on December 18, 2017.

The CES Phase 3 Implementation Plan (Phase 3 Plan) included changes required by the Commission's November 17, 2017 Order, resolution for previously unaddressed issues from the CES Framework Order and other existing Commission Orders, procurement results and reflects RES program developments since the filing of the Phase 2 Plan. Specifically, the Phase 3 Plan:

1. Clarified how obligated load is calculated.
2. Amended RES Tier 1 certification processes for eligible VDER resources.
3. Proposed to extend the commercial operation milestone date under RES Tier 1 procurements.
4. Proposed program design and procedures for the sale in 2019 and beyond of Tier 1 RECs procured by NYSERDA under long-term contracts, including:
 - a. Sale frequency and timing;
 - b. Sale pricing and inventory management process;
 - c. Eligible REC purchasers and transferability;
 - d. Sale methods; and

¹ Case 15-E-0302, Proceeding to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016) (CES Framework Order).

² Case 18-E-0071, In the Matter of Offshore Wind Energy, "Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement," issued and effective July 12, 2018. NYSERDA expects to file proposals as to the administration of the LSE OSW compliance obligations in the future.

³ Case 15-E-0302, supra, Order Approving Phase 1 Implementation Plan (issued February 22, 2017). (CES Phase 1 Order).

⁴ Case 15-E-0302, supra, Order Approving Phase 2 Implementation Plan (issued November 17, 2017). (CES Phase 2 Order).

- e. Considerations for potential future modifications to any of the above.
5. Proposed the continuation of current methods to calculate the alternative compliance payment (ACP) for 2019 and beyond, while providing considerations for potential future modifications.
6. Proposed Tier 1 REC banking rules applicable to LSEs and NYSERDA for 2019, while providing considerations for potential future modifications.
7. Outlined and clarified the state reporting requirements under the CES, including the content and timing of the Triennial Review process, and provided a schedule of ongoing filings.

The Commission approved the Phase 3 Plan by Order dated December 14, 2018⁵ with certain revisions as described in the body of the Order; the Final Phase 3 Plan was filed by Staff and NYSERDA on January 11, 2019.

On April 16, 2020, NYSERDA and Staff filed the CES Phase 4 Implementation Plan Proposal (Phase 4 Proposal) which focused on a number of implementation steps identified by the Commission's January 2020 Order Modifying Tier 1 Renewable Procurements (CES January Order),⁶ under which NYSERDA was authorized to employ an index pricing structure in its future Tier 1 solicitations.⁷ These implementation steps were primarily focused on impacts to the pricing and disposition of the Tier 1 RECs that NYSERDA procures under this new structure, such as changes to the current process of setting market prices, performance of auctions and managing REC vintages, changes to calculating ACPs, addressing unintentional impacts on the market for RECs imported to or exported from New York, and impacts to the Value Stack Environmental Value tariffs.⁸

The Commission approved the Implementation Plan proposal by Order (Phase 4 Order) dated August 13, 2020 with certain revisions as described in the body of the Phase 4 Order and directed that the final Implementation Plan be filed by September 12, 2020.⁹ This Final Plan incorporates the changes required by the Phase 4 Order.

2. NYSERDA Tier 1 REC Disposition

Per the CES Framework Order, NYSERDA was tasked with selling Tier 1 RECs procured through Renewable Portfolio Standard Main Tier central procurements (pre-2017) and Tier 1 RES procurements (2017 and thereafter) to RES-obligated LSEs. The processes and procedures by which Tier 1 eligible RECs were sold to RES-obligated LSEs during 2017 and 2018 were dictated by subsequent Implementation Plans.

The Phase 2 Plan modified the process for 2018 to employ four quarterly Tier 1 REC sale events, during which NYSERDA offers for sale to LSEs the actual number of Tier 1 RECs in NYSERDA's New York Generation Attribute Tracking System (NYGATS) account at the time of each sale.

⁵ Case 15-E-0302, supra, Order Approving Phase 3 Implementation Plan (issued December 14, 2018). (CES Phase 3 Order).

⁶ Case 15-E-0302, supra, Order Modifying Tier 1 Renewable Procurements (issued January 16, 2020). (CES January Order).

⁷ CES January Order, p. 28.

⁸ CES January Order, p. 26.

⁹ Case 15-E-0302, Order Approving Phase 4 Implementation Plan (issued August 13, 2020). (CES Phase 4 Order)

As an example, with respect to pricing for the 2020 compliance period, on December 27, 2019, NYSERDA filed its vintage 2020 Tier 1 REC sale price with the Commission¹⁰ and posted the vintage 2020 Tier 1 REC sale price on its website. The 2020 Tier 1 REC sale price of \$22.09 per MWh, which applies for each quarterly sale, was based on the *projected* weighted average cost per MWh NYSERDA anticipated paying to acquire all the vintage 2020 Tier 1 RECs projected to be sold in 2020. Any vintage 2020 RECs that remain unsold at the end of a quarterly sale process will be offered for sale in the subsequent quarter. Vintage 2019 Tier 1 RECs not purchased from NYSERDA by LSEs in 2019 will be offered through quarterly sales processes during 2020 at their original vintage 2019 Tier 1 REC price of \$22.43 per Tier 1 REC.

NYSERDA has continued to offer, in 2019 and beyond, quarterly Tier 1 REC sales to LSEs using the approach reflected in the Phase 2 Plan. The Phase 3 Plan confirmed that Tier 1 RECs sold to LSEs by NYSERDA are allocated on a first in, first out (FIFO) basis using the vintage date for NYGATS certificates in NYSERDA's NYGATS account to ensure transparency and consistency in the inventory clearance approach.¹¹ The Phase 3 Plan also confirmed that, unless otherwise modified in a future implementation plan, NYSERDA will continue to file the Tier 1 REC price annually, as adopted in the Final Phase 2 Plan.

Under the Final Phase 3 Plan, NYSERDA continued the pricing methodology for Tier 1 RECs for current and prior compliance year REC vintages. As NYSERDA may bank unsold Tier 1 RECs for 2 years, NYSERDA may reduce the sale price for banked Tier 1 RECs that are scheduled to expire at the end of the current compliance year. For Tier 1 RECs that are due to expire, NYSERDA may adjust the sale price to the current year's Tier 1 REC price if the price of the expiring Tier 1 RECs exceeds the current year's ACP price.¹² For example, unsold 2018 vintage Tier 1 RECs would expire at the end of the 2020 compliance period. For illustrative purposes only, should the 2018 vintage Tier 1 REC price exceed the 2020 ACP price, NYSERDA may sell any remaining 2018 vintage Tier 1 RECs at the 2020 REC price during the 2020 compliance period.

2.1 Sale Frequency and Timing

NYSERDA will continue to offer quarterly Tier 1 REC sales to LSEs using the approach adopted in the Final Phase 2 Plan. NYSERDA will expand the window during which NYSERDA will announce the quarterly Tier 1 REC Sale to provide sufficient time to determine the price of Tier 1 RECs procured under index-based contracts. As shown in Table 1, going forward, the window will be expanded to approximately thirty (30) days. NYSERDA will incorporate this change in 2021 and will follow the same methodology of announcing and concluding the sale in subsequent years.

Table 1: Proposed 2021-Forward REC Resale Process Schedule

Trading Period	Tier 1 REC Sale Offer Announcement	Tier 1 REC Sale Process Conclusion
Q1	Between March 31, 2021 and April 30, 2021	Announcement + 21 calendar days
Q2	Between June 30, 2021 and July 31, 2021	Announcement + 21 calendar days
Q3	Between September 30, 2021 and October 31, 2021	Announcement + 21 calendar days
Q4	Between December 30, 2021 and January 31, 2022	Announcement + 21 calendar days

¹⁰ Case 15-E-0302, *supra*, Filing Regarding Renewable Energy Standard 2018 Tier 1 Renewable Energy Credit (REC) and Alternative Compliance Payment (ACP) Price (filed December 1, 2017).

¹¹ Phase 2 Plan, p. 18.

¹² CES Phase 3 Order, p. 18.

2.2 Sale Pricing and Inventory Process

With the anticipation of NYSERDA purchasing Tier 1 RECs based on an index pricing formula, NYSERDA will implement changes to the current process of pricing Tier 1 RECs for sale to LSEs. As discussed above, under the current process, the NYSERDA Tier 1 REC price for the upcoming year is based on the *projected* weighted average cost per MWh NYSERDA will pay to acquire all the vintage Tier 1 RECs projected to be sold in the upcoming year. NYSERDA accepts the risk that the actual weighted average cost of RECs purchased by NYSERDA during a calendar year may differ from this projection. The inclusion of index priced Tier 1 RECs, because of their variable nature, would introduce increased uncertainty and increased risk into the current process. If the current process remains unchanged, this uncertainty would increase the possibility that NYSERDA would be selling Tier 1 RECs for at a price that significantly diverges from the actual Tier 1 REC purchase price.

NYSERDA will set a Tier 1 REC price for each individual quarterly sale, rather than set an annual REC price based on the projected weighted average cost of Tier 1 RECs, as is currently done. Prior to each quarterly Tier 1 REC Sale, NYSERDA will determine the actual average Tier 1 REC price NYSERDA paid to the generators of all Tier 1 RECs (whether purchased through a fixed or index method) being offered during that quarterly sale. Unsold RECs from previous quarters will be factored into the quarterly weighted average cost of Tier 1 RECs at the price NYSERDA purchased them.

NYSERDA will inform LSEs of the price and quantity of Tier 1 RECs available when it announces the start of each quarterly Tier 1 REC sale. NYSERDA's price for a Tier 1 REC will no longer be tied to its vintage. The Tier 1 REC price could vary each quarter depending upon the volatility of the index REC payments and the number of Tier 1 RECs purchased through index REC contracts. However, NYSERDA anticipates relatively minor variations in the initial years.

Under the current process, LSEs place an order for Tier 1 RECs depending on the vintages available from NYSERDA during that particular quarterly Tier 1 REC sale. Under the new process, each of the Tier 1 RECs offered by NYSERDA during the quarterly Tier 1 REC sale will have the same weighted average price regardless of vintage.

NYSERDA and Staff recognize that the change will introduce a measure of volatility into the price at which NYSERDA offers Tier 1 RECs to LSEs. The continued use of the quarterly sale process will help mitigate that volatility by using a weighted average price for all Tier 1 RECs being offered during the quarterly Tier 1 REC sale. In addition, NYSERDA regularly reports on the bid price for all executed contracts procured under the Large-Scale Renewable solicitations on [Open NY](#). This resource provides transparency for all stakeholders and will allow LSEs to use the data in their own pricing forecasts.

2.3 Inventory Management and Banking

For 2021 and beyond, as in the current process, any unsold Tier 1 RECs from a quarterly Tier 1 REC sale will be included in the following quarterly Tier 1 REC sale. NYSERDA will continue to allocate Tier 1 RECs on a FIFO basis using the vintage date for NYGATS certificates in NYSERDA's NYGATS account to ensure transparency and consistency in the inventory clearance approach.¹³ This approach will maximize the 2 year lifespan of the Tier 1 RECs and provide flexibility to LSEs when managing their RES obligations. In

¹³ Phase 2 Plan, p. 18.

addition, the FIFO basis will reduce the potential of NYSERDA being unable to clear its inventory of Tier 1 RECs and the resulting need for use of the backstop mechanism.

NYSERDA and Staff will not make any changes to the Tier 1 REC banking rules with this proposed implementation plan.

3. Tier 1 REC Solicitation

3.1 Levelized Net Weighted Average Price

At the conclusion of each Tier 1 REC solicitation, NYSERDA traditionally publishes the net weighted average bid price of the projects that were selected. NYSERDA's new approach of purchasing Tier 1 RECs under an index price structure will continue to support the publication of a levelized *net* weighted average awarded bid price, as was demonstrated when NYSERDA published the levelized net weighted average bid price at the conclusion of the first Offshore Wind solicitation.¹⁴ Similarly, NYSERDA will publish the levelized net weighted average awarded bid price of the projects that were selected through each Tier 1 REC solicitation.

4. Alternative Compliance Payments

4.1 Alternative Compliance Payment (ACP) Level

Consistent with the CES Framework Order, LSEs may pay an ACP as an alternative for demonstrating compliance with their Tier 1 obligations. The ACP is not a penalty for noncompliance; rather, it is an alternative avenue to compliance. It caps the total cost of the RES because LSEs will have no obligation to incur costs in excess of the ACP. In accordance with the CES Framework Order, ACPs are paid to NYSERDA during the reconciliation period for each annual compliance year.

The CES Framework Order established an overarching objective for regional consistency in ACP requirements, given that the alignment or divergence of ACP requirements can materially affect the cost of compliance and that regional markets, enabled through consistency of state requirements, can contribute to reducing the cost of achieving the RES goal. To provide LSEs with a static maximum price exposure against which to assess its Tier 1 REC purchase decisions, it is critical that the ACP be established prior to the start of the compliance year and be held constant at that level. For the 2021 compliance period and until otherwise modified by future Commission action, NYSERDA will set the price of the ACP as the net weighted average cost for the Tier 1 RECs *projected* to be delivered during that compliance year, plus ten (10) percent, plus any Commission-approved administrative adder. The proposed increase in percentage is meant to accommodate the increased price variability inherent in an Index REC structure and to ensure that the ACP price is set at a level that does not undercut NYSERDA's quarterly Tier 1 REC Price.

For each compliance year, the net weighted average price will be determined by calculating the following:

- a) For Index REC settled Agreements, each generator's strike price will be converted into an expected annual REC value by subtracting a forecast of expected Reference Energy and Capacity

¹⁴ NYSERDA. "Launching New York's Offshore Wind Industry: Phase 1 Report." October 23, 2019.

Prices from these strike prices. The Reference Energy Capacity Prices will be based on NYSERDA's forecast for energy and capacity prices.¹⁵ This expected annual REC value and the quantity of RECs expected to be produced from each generator will be summed for all Index REC settled Agreements to obtain the total expected annual Index REC value and Index REC total quantity.

- b) For Fixed REC Agreements, NYSERDA will use the REC price for each generator. The Fixed REC price and the quantity of RECs expected to be produced from each generator will be summed for all Fixed REC Agreements to obtain the total Fixed REC cost and Fixed REC total quantity.
- c) NYSERDA will sum the total costs expected (total expected annual Index REC value plus the total Fixed REC cost).
- d) NYSERDA will sum the total expected RECs (total quantity of expected Index and Fixed RECs).
- e) Finally, NYSERDA will divide the total expected costs expected by the total expected RECs to determine the net weighted average REC price.

NYSERDA and Staff will have the ability to review and adjust ACP calculation methodology during the annual Divergence Test. The goal of doing so will be to determine an ACP price that is not punitive or burdensome as experience with this new payment methodology increases.

¹⁵ NYSERDA will use an appropriate energy and capacity forecast consistent with the NYISO Zone or point of injection of the generator.